

**REMARKS**

Applicant respectfully submits that there is one key point in the Examiner's analysis which upon reconsideration should lead to an allowance of the claims. This is with regard to the feature of the "controller" and the requirement that "the controller maintains the water temperature at the water inlet to the inner flow path of the heat exchanger at or above a selected temperature sufficient to prevent condensation of combustion products from the burner on the exterior surface of the heat exchanger."

In response to Applicant's previous arguments, and particularly with regard to the language just quoted regarding the controller, the Examiner has contended in both paragraph 2 of the Office Action (which was based upon the Ueki reference) and paragraph 6 of the Office Action (which was based on the Kato reference) that the controller of those references was capable of performing such a function and that "in the alternative, it would have been an obvious matter of design choice to select the water temperature at any desired temperature in order to obtain the optimum result since applicant has not disclosed that the claimed temperature solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art and it appears that the claimed features does not distinguish the invention over similar features in the prior art."

First, Applicant respectfully submits that the controllers of neither the Ueki nor Kato reference are disclosed in way to show that they are capable of performing the stated functions, since as previously pointed out in great detail in Applicant's prior response neither the Ueki nor Kato devices are in any way intended to function in the

manner described. Thus, it should be clear that neither Ueki nor Kato anticipates claim 27 and particularly this feature of the controller of claim 27.

Thus we are left with the Examiner's alternative obviousness rejection.

With respect, Applicant has very clearly disclosed that the claimed temperature solves a stated problem in a new and unexpected and unobvious way.

Applicant has identified a definite problem, namely formation of condensation on the exterior of the heat exchanger. Applicant has identified a new way of solving that problem which is not shown or suggested by any of the cited references, namely the recirculation of a portion of the heated water back to the inlet of the heat exchanger so that a portion of the heat energy from the heat exchanger is used to maintain the inlet temperature of water coming into the heat exchanger and thus maintain the temperature on the exterior of the heat exchanger high enough that combustion products cannot condense on it. The controller, which is a structural element, is specifically required to be operative in such a way as to "maintain the water temperature at the water inlet to the inner flow path of the heat exchanger at or above a selected temperature sufficient to prevent condensation of combustion products from the burner on the exterior surface of the heat exchanger."

This is clearly a new approach, given the fact that the Examiner cannot find any reference showing or suggesting the use of this technique to prevent condensation, and a controller programmed so as to provide this function is a structural element which is entitled to full consideration in the examination of this apparatus claim.

For all the reasons set forth, it is submitted that claim 27 is neither anticipated by nor made obvious by either of the Examiner's cited primary references, and

accordingly it is submitted than claim 27 and all claims dependent therefrom should be allowed.



Respectfully submitted,



Lucian Wayne Beavers  
Registration No. 28,183  
WADDEY & PATTERSON  
A Professional Corporation  
Customer No. 23456

ATTORNEY FOR APPLICANT

Please direct all correspondence and phone calls in this matter to:

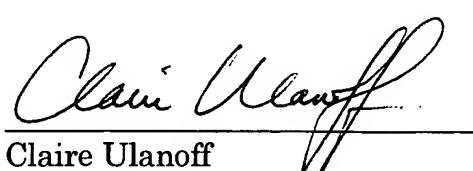
Lucian Wayne Beavers  
Waddey & Patterson  
Roundabout Plaza  
1600 Division Street, Suite 500  
Nashville, TN 37219  
(615) 242-2400

**CERTIFICATE OF FIRST CLASS MAILING**

I hereby certify that this Response to Office Action, with Request for One Month Retroactive Extension of Time and check for \$60.00, in U.S. Patent Serial No. 10/624,374 filed July 22, 2003 is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

on 7-5-06

  
Claire Ulanoff